# The evolving landscape of artificial intelligence applications



In recent discussions surrounding artificial intelligence (AI), experts have noted a significant shift from mere experimentation to practical applications within various industry operations. Arvind Narayanan, a computer science professor at Princeton University and co-author of the book *AI Snake Oil: What Artificial Intelligence Can Do, What It Can’t, and How to Tell the Difference*, highlighted this evolution, stating that the focus has moved from merely presenting models to actively constructing products that leverage AI capabilities more effectively.

Since the introduction of AI tools, particularly OpenAI's ChatGPT, millions of users have engaged with these technologies. Many have found them useful for particular tasks, though some experiences resulted in disappointments. Narayanan stated, “What primarily was wrong with generative AI last year is that companies were releasing these really powerful models without a concrete way for people to use them.” This year, however, sees a gradual development of tools designed to harness AI’s capabilities for practical uses.

The economic impact of AI technologies has also garnered attention, especially from tech executives during quarterly earnings calls. Analysts have expressed interest in understanding how substantial investments in AI research and development will yield financial returns. The operations of generative AI models like ChatGPT and Google's Gemini necessitate considerable resources, including energy-intensive computing systems powered by advanced AI chips. According to Goldman Sachs analyst Kash Rangan, "We're talking about hundreds of billions of dollars of capital that have been invested in this technology."

While some analysts maintain a cautious stance, questioning if AI can solve complex problems adequately to justify its costs, others see incremental productivity improvements across various sectors. Rangan reflected, “It’s more expensive than we thought and not as productive as we imagined.” Nevertheless, he maintains optimism regarding AI's potential to enhance productivity in fields such as sales and design.

Concerns surrounding job displacement or enhancement due to AI are becoming increasingly prevalent among the workforce. For example, Borderless AI is utilising a Cohere chatbot to draft employment contracts for workers in Turkey and India without the need for human legal expertise. Meanwhile, actors in the video game industry recently expressed fears that AI might replicate performances without consent, spurring strikes from the Screen Actors Guild. There have also been rising concerns from musicians and authors regarding the implications of AI on their creative industries.

Despite these worries, experts such as Walid Saad from Virginia Tech caution that generative AI currently lacks the creativity and common-sense reasoning inherent to human intelligence. "Having more information does not mean being more creative," he remarked, indicating that AI's current capabilities do not extend to genuine understanding or imagination.

Looking forward, there appear to be plans for advancements in AI crafting more useful consumer tools. Vijoy Pandey, senior vice president of Cisco’s innovation branch, Outshift, mentioned a vision for future AI agents that can reason and collaborate, addressing ambiguous queries in a structured manner. He predicts that by 2025, technology will be developed to enable AI agents to work together effectively, akin to human teamwork in problem-solving.

Moreover, the medical field has seen significant advancements through AI applications. The recent Nobel Prize in Chemistry acknowledged research led by Google, which could facilitate drug discovery processes. Similarly, Saad noted that AI helps physicians receive rapid diagnostics by flagging potential issues based on data analysis, contributing to better patient care. However, the technology does introduce risks, such as the possibility of perpetuating inaccuracies.

The work of OpenAI’s transcription tool, Whisper, has been recognised for its high precision, although experts caution that it has a tendency to fabricate content. In pharmaceutical contexts, Pandey noted that AI has expedited development timelines, reducing what once took years down to mere days.

This continual evolution of AI indicates a future rich with potential applications, reflecting broader efforts across various industries to enhance efficiencies and improve outcomes.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.calmu.edu/news/future-of-artificial-intelligence> - This article discusses the evolution and future of AI, including its practical applications in various industries such as healthcare, education, finance, and transportation, which supports the shift from experimentation to practical uses.
* <https://explodingtopics.com/blog/ai-statistics> - This source provides statistics on AI adoption and growth, including the increasing use of AI in various industries and its economic impact, aligning with the discussion on substantial investments and financial returns.
* <https://opencv.org/blog/top-7-ai-applications/> - This article highlights AI applications in banking and agriculture, among other sectors, demonstrating how AI is revolutionizing industry operations and cutting costs, which is in line with the economic impact and practical uses discussed.
* <https://www.calmu.edu/news/future-of-artificial-intelligence> - This article mentions AI's role in healthcare, such as diagnosing diseases and personalizing treatment plans, which supports the medical field advancements and risks associated with AI.
* <https://explodingtopics.com/blog/ai-statistics> - This source notes the use of AI in disease prevention and the discovery of unknown strains, further highlighting AI's medical applications and potential.
* <https://www.calmu.edu/news/future-of-artificial-intelligence> - The article discusses AI's impact on job displacement and enhancement, including automation in various sectors, which aligns with concerns about job displacement and creative industries.
* <https://opencv.org/blog/top-7-ai-applications/> - This article mentions AI's role in addressing labor shortages and improving efficiency in industries like agriculture, reflecting the broader efforts to enhance efficiencies.
* <https://explodingtopics.com/blog/ai-statistics> - This source highlights the growth of AI companies and the increasing use of AI tools like machine learning and data analysis, supporting the incremental productivity improvements across sectors.
* <https://www.calmu.edu/news/future-of-artificial-intelligence> - The article discusses the potential of AI to generate new revenue streams and drive economic growth through productivity gains and innovation diffusion, aligning with the economic impact and future potential of AI.
* <https://opencv.org/blog/top-7-ai-applications/> - This article notes the cost savings and efficiency improvements AI brings to industries like banking, which supports the discussion on substantial investments and financial returns from AI technologies.